

The invention is an integrated, data-centric hazard communication system. The system has an authoring module and a means for disseminating hazard information about a material and its components, decomposition products and related materials. The authoring module decompiles material data, associates the decompiled data with hazard information, and recompiles material data associated with hazard information to provide hazard information about the material, its components, decomposition products of the material, and substances related to the material. The system can be a general purpose computer programmed with computer instructions to perform these functions. Computer software for performing these functions is also presented.